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LETTER TO THE EDITOR

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Semakov and Zinoviev [3] have constructed in 1969 a Steiner system $S(3, 4, 16)$ completely partitionable into Steiner systems $S(2, 4, 16)$ (in this case $S(3, 4, 16)$ being called 2-resolvable), each of which is completely partitionable into Steiner systems $(1, 4, 16)$ (then $S(3, 4, 16)$ being said to be doubly resolvable). Zaitsev, Zinoviev and Semakov [4] have proved the existence of an infinite family of 2-resolvable Steiner systems $S(3, 4, 2^{2m})$, $m = 2, 3, 4, \ldots$.

Independently, Baker has reproved in [1] the latter result. Also, he has proved that these 2-resolvable $S(3, 4, 2^{2m})$ are in fact doubly resolvable. The bibliography of Lindner and Rosa's recent survey [2] of Steiner systems $S(3, 4, n)$ (where reference is made to [1]), should also include references to [3] and [4].

References

[1] R.D. Baker, Partitioning the planes of $AG_{2m}(2)$ into 2-designs, Discrete Math. 15 (1976) 205–211.

[2] C.C. Lindner and A. Rosa, Steiner quadruple systems—A survey, Discrete Math. 21 (1978) 147–181.

[3] N.V. Semakov and V.A. Zinoviev, Perfect and quasi-perfect equal-weight codes, Problemy peredatshi informatsii 5 (2) (1969) 14–18.

[4] G.V. Zaitsev, V.A. Zinoviev and N.V. Semakov, Interrelation of Preparata and Hamming codes and extension of Hamming codes to new double-error-correcting codes, in: 2-nd International Symposium on Information Theory, Tsahkadsor, Armenian SSR, USSR, 1971 (Akadémiai Kiado, Budapest, 1973) 257–263.